



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Applicant: Severeid et al

Attorney Docket No. 25299

Serial No.: 10/635,284

Group Art Unit: 1731

Filing Date: 08/05/2003

Examiner: Unassigned

Title: Methods for making carboxylated pulp fibers

Federal Way, WA 98063

February 9, 2005

TO THE COMMISSIONER FOR PATENTS:

Applicants are aware of the information listed in the attached form that may be material to the prosecution of the above-identified patent application.

Pursuant to 37 C.F.R. § 1.97(b)(3), this Information Disclosure Statement is being filed with the U.S. Patent and Trademark Office before the mailing of a first Office action on the merits.

Copies of foreign patents and non-patent references are enclosed herewith.

Respectfully submitted,

WEYERHAEUSER COMPANY

John M. Crawford  
Registration No. 19,670  
Direct Dial No. 253.924.5611

I hereby certify that this correspondence is being sent via first class mail addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on the date below:

Date:

02/10/05

Susan J. Finn  
Susan J. Finn

**INFORMATION DISCLOSURE STATEMENT  
LIST OF DISCLOSURE REFERENCES**

Docket No. 25299	Serial No. 10/635,284
File Date August 5, 2003	Group Art Unit 1731
Applicant Severeid et al.	

O I P E SC 10 FEB 14 2005 JAPAN TRADEMARK OFFICE

**U.S. Patent Documents**

Examiner Initial	Document Number	Date	Name
U1	3,575,177	04/1971	Briskin et al.
U2	4,100,341	07/1978	Brasey et al.
U3	4,401,810	08/1993	Tang et al.
U4	4,480,089	10/1994	Chen et al
U5	4,679,278	07/1987	Caumont
U6	4,505,775	03/8195	Harding et al.
U7	5,667,637	09/1997	Jewell et al.
U8	5,755,828	05/1998	Westland
U9	5,824,462	10/1998	Ashida et al.
U10	6,031,101	02/2000	Devine et al.
U11	6,117,883	09/2000	Racherla
U12	6,127,573	10/2000	Li et al.
U13	6,228,126	05/2001	Cimecioglu et al
U14	6,379,494	04/2002	Jewell et al.
U15	6,409,881	06/2002	Jaschinski
U16	6,447,644	09/2002	Seltzer et al.
U17	20040072600	06/2002	Bragd et al.

**Foreign Patent Documents**

Examiner Initial	Document Number	Date	Country	Translation	
				Yes	No
F1	0 574 666 A1	04/1993	EPO	X	
F2	1 077 221 A1	02/2001	EPO		
F3	1 077 285 A1	02/2001	EPO		
F4	1 077 286 A1	02/2001	EPO		
F5	2,674,528	10/1992	France		X
F6	2001/49591	02/2001	Japan		X
F7	WO 95/07303	03/1995	PCT		
F8	WO 96/36621	11/1996	PCT		
F9	WO 96/38484	12/1996	PCT		
F10	WO 98/27117	06/1998	PCT		
F11	WO 99/23117	05/1999	PCT		
F12	WO 99/57158	11/1999	PCT		
F13	WO 00/50388	08/2000	PCT		
F14	WO 00/50462	08/2000	PCT		
F15	WO 00/50463	08/2000	PCT		
F16	WO 00/50621	08/2000	PCT		
F17	WO 00/56978	09/2000	PCT		
F18	WO 01/23657	05/2001	PCT		
F19	WO 01/29309	04/2001	PCT		

**Other Disclosure References (Including author, title, date, pertinent pages, etc.)**

	O1	Andersson, R., J. Hoffman, N. Nahar and E. Scholander. An n.m.r. study of the products of oxidation of cellulose and (1→4)- $\beta$ -D-xylan with sodium nitrite in orthophosphoric acid. <i>Carbohydrate Research</i> <b>206</b> : 340-346 (1990).
	O2	Anelli, P. L., S. Banfi, F. Montanari and S. Quichi. Oxidation of diols with alkali hypochlorites catalyzed by oxammonium salts under two-phase conditions. <i>Journal of Organic Chemistry</i> <b>54</b> : 2970-2972 (1989).
	O3	Barzyk, D., D. H. Page and A. Ragauskas. Acidic group topochemistry and fibre-to-fibre bond strength. <i>Journal of Pulp and Paper Science</i> <b>23</b> (2): J59-J61 (1997).
	O4	Barzyk, D., D. H. Page and A. Ragauskas. Carboxylic acid groups and fibre bonding. In <i>The Fundamentals of Papermaking Materials: Transactions of 11<sup>th</sup> Fundamental Research Symposium</i> , Cambridge, 2: 893-907 (Sept. 1997).
	O5	Besemer, A. C., A. E. J. de Nooy and H. van Bekkum. Methods for selective oxidation of cellulose: Preparation of 2,3-dicarboxycellulose and 6-carboxy-cellulose. In <i>Cellulose Derivatives</i> , T. J. Heinze and W. G. Glasser eds., Ch. 5, pp 73-82 (1996).
	O6	Chang, P. S. and J. F. Robyt. Oxidation of primary alcohol groups of naturally occurring polysaccharides with 2,2,6,6-tetramethylpiperidine oxoammonium ion. <i>Journal of Carbohydrate Chemistry</i> <b>15</b> (7): 819-830 (1996).
	O7	Datye, K. V. and G. M. Nabar. Studies in the reaction of formaldehyde with unmodified, modified and dyed celluloses. Part III: The reaction of formaldehyde and oxycelluloses. <i>Textile Research Journal</i> <b>33</b> (7): 500-510 (1963).
	O8	Davis, N. J. and S. L. Flitsch. Selective oxidation of monosaccharide derivatives to uronic acids. <i>Tetrahedron Letters</i> <b>34</b> (7): 1181-1184 (1993).
	O9	Einhorn, J., C. Einhorn, F. Ratajczak and J-L. Pierre. Efficient and highly selective oxidation of primary alcohols to aldehydes by <i>N</i> -chlorosuccinimide mediated by oxammonium salts. <i>Journal of Organic Chemistry</i> <b>61</b> : 7452-7454 (1996).
	O10	Ganiev, I. M., Q. K. Timerghazin, A. F. Kalizov, V. V. Shereshovets, I. M. Grigor'ev and G. A. Tol'skitov. Complex of Chlorine dioxide with TEMPO and its conversion into oxoammonium salt. <i>Journal of Physical Organic Chemistry</i> <b>14</b> : 38-42 (2001).
	O11	Isogai, A. Application of stable nitroxyl radical reagents to cellulose modification. <i>Cellulose Communications</i> <b>5</b> : 153-164 (1998).
	O12	Isogai, A. and Y. Kato. Preparation of polyuronic acid from cellulose by TEMPO-mediated oxidation. <i>Cellulose</i> <b>5</b> : 153-164 (1998).
	O13	Kitaoka, T., A. Isogai and F. Onabe. Surface modification of pulp fibers by TEMPO-mediated oxidation. <i>Sen'i Gakukai Preprint</i> 1998.
	O14	Kitaoka, T., A. Isogai and F. Onabe. Chemical modification of pulp fibers by TEMPO-mediated oxidation. <i>Nordic Pulp and Paper Research Journal</i> <b>14</b> (4): 279-284 (1999).
	O15	Luner, P., K. P. Vemuri and B. Leopold. The effect of chemical modification on the mechanical properties of paper. II. Wet strength of oxidized springwood and summerwood southern pine kraft fibers. <i>Tappi</i> <b>50</b> (3): 1127-120 (1967).

	O16	Luner, P., K. P. Vemuri and F. Womeldorf. The effect of chemical modification on the mechanical properties of paper. III. Dry strength of oxidized springwood and summerwood southern pine kraft fibers. <i>Tappi</i> <b>50</b> (5): 227-230 (1967).
	O17	de Nooy, A. E. J., A. C. Besemer and H. van Bekkum. Highly selective TEMPO-mediated oxidation of primary alcohol groups in polysaccharides. <i>Receuil des Travaux Chimiques des Pays-Bas</i> <b>113</b> (3): 165-166 (1994).
	O18	de Nooy, A. E. J., A. C. Besemer and H. van Bekkum. Highly selective nitroxyl radical-mediated oxidation of primary alcohol groups in water soluble glucans. <i>Carbohydrate Research</i> <b>269</b> :89-98 (1995).
	O19	de Nooy, A. E. J., A. C. Besemer and H. van Bekkum. On the use of stable organic nitroxyl radicals for the oxidation of primary and secondary alcohols. <i>Synthesis: Journal of Synthetic Organic Chemistry</i> October 1996 pp 1163-1174.
	O20	RAPSON WH, "The General Principles of Pulp Bleaching," The Bleachign of Pulp, 1963, CH. 2, pp. 8-9
	O21	Shenai, V. A. and A. S. Narkhede. Hypochlorite oxidation of cellulose in the presence of cobalt sulfide. <i>Textile Dyer and Printer</i> <b>20</b> : 17-22 (1987).
	O22	Shet, R. T. and A. M. Yabani. Crease-recovery and tensile-strength properties of unmodified and modified cotton cellulose treated with cross-linking agents. <i>Textile Research Journal</i> <b>51</b> (11): 740-744 (1981).
	O23	Young, R. A. Bonding of oxidized cellulose fibers and interaction with wet strength resins. <i>Wood and Fiber</i> <b>10</b> (2): 112-119 (1978).
	O24	Zhao, M., J. Li, E. Mano, Z. Song, D. M. Tschaen, E. J. J. Grabowski and P. J. Reider. Oxidation of primary alcohols to carboxylic acids with sodium chlorite catalyzed by TEMPO and bleach. <i>Journal of Organic Chemistry</i> <b>64</b> : 2564-2566 (1999).

Examiner

Date Considered

---

\*Examiner: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.